

WHAT IS CLAIMED IS:

1. An isolated nucleic acid encoding K12 protein.
2. The nucleic acid according to claim 1 wherein said K12 protein is mammalian K12 protein.
3. The nucleic acid according to claim 1 wherein said K12 protein has the amino acid sequence set forth in Figure 1.
4. The nucleic acid according to claim 2 wherein said mammalian K12 protein is human K12 protein.
5. An isolated nucleic acid encoding mammalian K12 protein, or portion thereof of at least 15 consecutive bases, or complement thereof.
6. The nucleic acid according to claim 5 wherein said mammalian K12 protein is human K12 protein.
7. The isolated nucleic acid according to claim 5 wherein the nucleic acid encodes the amino acid sequence set forth in Figure 1, or portion thereof of at least 5 amino acids.
8. The isolated nucleic acid according to claim 7 wherein the nucleic acid has the sequence

shown in Figure 2, or a sequence substantially identical thereto, or portion thereof of at least 15 consecutive bases.

9. The isolated nucleic acid according to claim 8 wherein said nucleic acid has the sequence shown in Figure 2, or portion thereof of at least 15 consecutive bases.

10. The isolated nucleic acid according to claim 9 wherein the nucleic acid has the sequence shown in Figure 2.

11. A recombinant molecule comprising said nucleic acid according to claim 1 and a vector.

12. The recombinant molecule according to claim 11 further comprising a promoter operably linked to said nucleic acid sequence.

13. A host cell comprising said recombinant molecule according to claim 11.

14. A method of producing K12 protein comprising culturing said host cell according to claim 13 under conditions such that said nucleic acid sequence is expressed and said K12 protein is thereby produced.

15. A recombinant molecule comprising the nucleic acid sequence according to claim 5 and a vector.

16. The recombinant molecule according to claim 15 further comprising a promoter operably linked to said nucleic acid sequence.

17. A host cell comprising said recombinant molecule according to claim 15.

18. A method of producing mammalian K12 protein, or portion thereof, comprising culturing said host cell according to claim 17 under conditions such that said nucleic acid sequence is expressed and said mammalian K12 protein, or portion thereof, is thereby produced.

19. An isolated mammalian K12 protein or portion thereof of at least 5 consecutive amino acids.

20. The protein according to claim 19 wherein said protein has the amino acid sequence shown in Figure 1.

21. An antibody specific for the protein, or portion thereof, of claim 19.

22. The antibody according to claim 21 wherein said antibody is 7C3.

23. A method of detecting the presence of neoplastic or preneoplastic cells in a mammal comprising:

- i) obtaining a biological sample from said mammal;
- ii) screening said sample for an elevated level of K12 protein, relative to a level present in a corresponding normal biological sample,

wherein said elevated level is indicative of the presence of said neoplastic or preneoplastic cells.

24. The method according to claim 23 wherein said sample is a biological fluid.

25. The method according to claim 23 wherein the sample is tissue sample.

26. The method according to claim 23 wherein said screening is effected by contacting said sample with a compound that forms a complex with K12 protein under conditions such that the complex can form; and determining the amount of complex formed.

27. The method of claim 26 wherein said compound is a binding protein.

28. The method according to claim 27 wherein the binding protein is an antibody or binding fragment thereof.

29. A kit for use in the detection of K12 protein comprising a compound that specifically binds to K12 protein disposed within a container means.

30. The kit according to claim 29 wherein said compound is an antibody or binding fragment thereof.

31. A method of treating a neoplastic or preneoplastic condition comprising introducing into a mammal in need of such treatment an antisense construct that comprises a vector and a nucleic acid sequence encoding K12 protein, or portion thereof, oriented in an antisense direction relative to the direction of transcription, under conditions such that sequence is expressed and said treatment thereby effected.

32. A method of screening a compound for its ability to modulate K12 protein growth promoting activity comprising incubating K12 protein, or portion thereof, with cells susceptible to the growth promoting activity of K12 protein, in the presence and absence of said compound, and assaying for an alteration in the growth rate of said cells in the presence of said compound,

a reduction in the growth rate of said cells being indicative of a compound that modulates said growth promoting activity.